#### **EXHIBIT 143**

#### **EXHIBIT FILED UNDER SEAL**

#### Case 3:19-md-02913-WHO Document 4385-14 Filed 02/12/25 Page 2 of 17

Date: Wednesday, June 18 2014 04:49 PM

Subject: Fwd: juul deck From: Riaz Valani

To: Zach Frankel

Attachments: 14-0521 JUUL Update.pdf; ATT00001.htm



#### Begin forwarded message:

From: James Monsees < james@ploom.com>

Date: 18 June 2014 16:46:21 BST

To: Riaz Valani < rvalani@gacapital.com >

Subject: juul deck

#### Highlights:

P.3: Device produces 4.5+ mg per puff even in detuned state, higher than any product on market but in a smaller form factor. Not shown is at full power Juul can deliver 8+ mg/puff, rivaling most large form factor tank-based products.

Design patents on unique form prevents confusion from competitors or knockoffs and makes for easy enforcement.

P.7: JUUL liquid formulation exhibits as expected blood nicotine levels similar to cigarettes which no other e-cig can do. Tank-based vaporizers can reach these levels but only after 30+ minutes of constant use. More data on this and preliminary Phase 1 trials results to be presented during the board meeting.

P.8: We've developed over 150 revisions of the JUULpod design to ensure performance and reliability. The only prototypes JTI has seen were single digit revisions. Not shown: design direction is chosen and passes all leakage tests. If JTI helps define testing we'll apply that as well but haven't received any specific input.

P.11: Based partially on JTI's input we've increased the size of the device to compete directly against all competitive specs. Although liquid volume is on the low side for premium products (thus puff count) the liquid performance means considerably more usage and consumer satisfaction per cartridge than anything else. Obviously if we don't use the Ploom liquid formulation this advantage changes and JUUL would lose much of its competitive advantage.

P.12: Based on guidance from Ali, Simon, Taro, etc. we're focusing on delivering prototypes that eliminate the leaking issue. Those will be sent to JTI starting next week. Further refinements will make the size changes and interface changes but have zero product risk. October prototypes will be feature complete with size, interface, everything.

James Monsees cco

Confidential MDL\_RV0025943

ploom | 660 Alabama St, 2nd Floor, San Francisco, CA 94110 | m4152180374

Confidential MDL\_RV0025944

6

CONFIDENTIAL

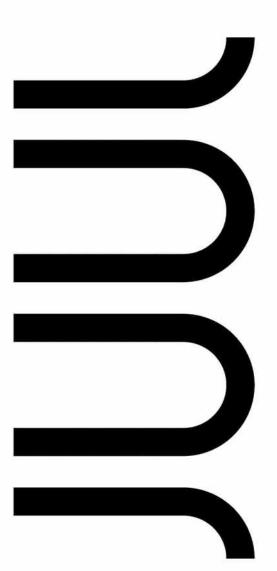
May 21, 2014

JUUL update

ploom, inc. confidential

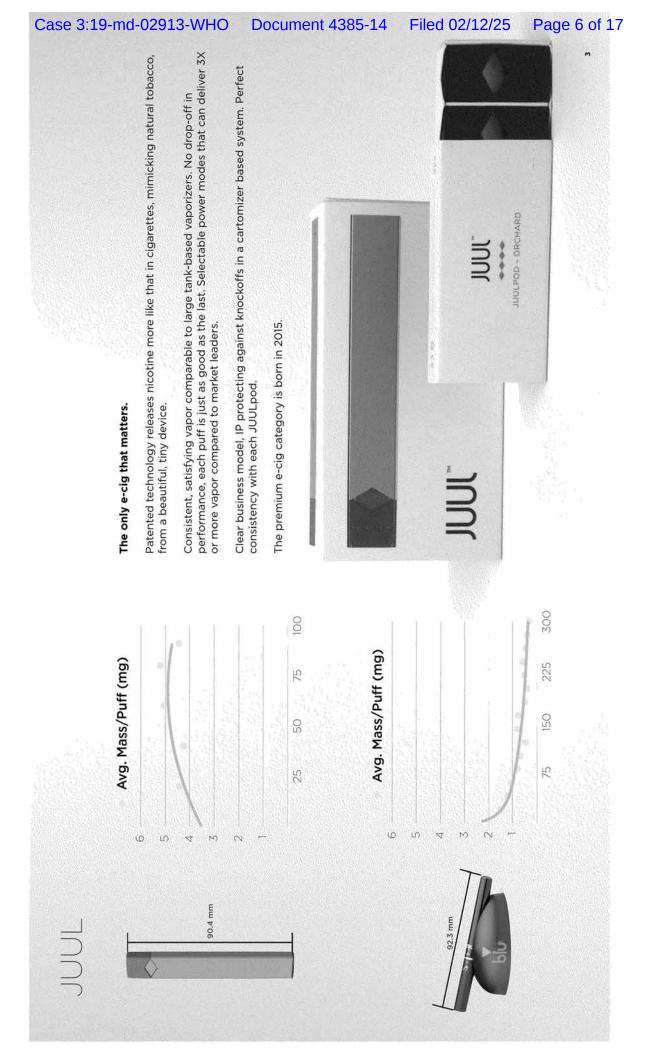
Confidential

Case 3:19-md-02913-WHO Document 4385-14 Filed 02/12/25 Page 5 of 17



MDL\_RV0025946

ploom, inc. confidential



## update overview

#### vapor production

Current prototypes prove capable to significantly outperform market competition, delivering over 8mg vapor mass per puff compared with 4.5 from the best performing cig-size competitor (Greensmoke).

#### clinical study

Phase O results prove that nicotine salt formulation is able to deliver blood nicotine levels at time intervals similar to cigarettes, even within EU restricted nicotine levels.

#### atures

Due to market trends toward larger devices capable of delivering higher vapor mass but accounting for consumer demand for increased puff count, JUUL will have a feature added for production to allow user-selectable power modes. High power will deliver vapor superior to any small form factor device. Medium will be on par with top market competitors and low will maximize puff count per cartridge by mimicking top-selling disposable product performance.

#### market positioning

In light of the insightful information communicated via JTI's "Product Brand Requirements" document Ploom agrees that a larger volume JUULpod is advantageous in solidifying the premium positioning of the product. Likewise, a slight increase to battery capacity is worth the slight increase to product size. A higher sales price is also appropriate and being explored.

#### kina

JUULpod leaking and "weeping" remains top priority for issue mitigation prior to launch. Although all e-cigarettes demonstrate at least minor leaking under extreme conditions Ploom is extremely confident that this will not be an issue. A set of features has been added to each JUULpod that creates a buffer overflow region to capture liquid that would otherwise escape the JUULpod. The size of this feature is being optimized to prevent leakage after two airplane flights in worst-case conditions. Two separate designs will be produced through to tooling to ensure we choose the best possible design.

#### schedule

Prioritizing confidence in leak-protection, the next prototype JUULpods will be made to fit the original JUUL device size. The design of the system allows for easy optimization of cartridge and battery sizing for subsequent prototypes.

ploom, inc. confidential

300

225

150 puff count

75

### puff results

# Puffs were taken by smoking machine to test cartridge size.

60cc puffs were taken over 3 seconds.

NOTE: Blu puffs were 60cc over 2.75 seconds. Sensor would not activate under normal profile.

Vuse

Green Smoke

o Juul

o NJoy

o Blu

9

## Mass was measured every 20 puffs.

Mass loss per puff was averaged over 20 puffs. Lost mass is a good measure of the "size" of the puff.

# Batteries were changed/recharged when needed and where applicable.

4.5

NOTE: Power supply was used for JUUL testing.

	NJoy Disposable	Blu Rechargeable	Green Smoke Rechargeable	Vuse	Junf
Cumulative Removed (mg)	217	211	964	393	427
Measured Good* Puffs	95	180	220	200	16
Marketed Puffs	001	300	360	200	0.

1.5

mass per puff (mg)

\*Puffs were counted as good if the size was at least half the mass of the initial puffs.

ploom, inc. confidential

# clinical study phase 0 results excerpt

NOTE: Ploom is proceeding with an n=24 subject version of this study which will be complete by mid-June.

Ploom conducted PO clinical trials at a JTI-approved lab in New Zealand.

## Summary of study design

Randomized, blinded crossover with 90-minute washout period Number of subjects: n=3

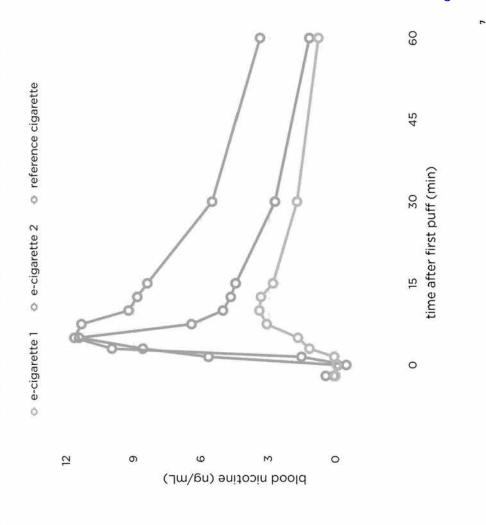
#### Data Processing

Due to the time limit of the wash-period, baseline blood nicotine concentration (at t=-2 and t=0 min) was higher for samples consumed at later time on the test day, the following chart shows corrected blood nicotine concentration (i.e. apparent blood nicotine concentration at each time point minus baseline nicotine concentration of the same sample).

Reference cigarette: Pall Mall (New Zealand)
e-cigarette 1: Industry-standard e-liquid formulation at 2% nicotine concentration

e-cigarette 2: Preferred embodiment e-liquid formulation at

2% nicotine concentration



ploom, inc. confidential

design 3

design 2

design 1

optimal

life performance

MDL RV0025952

## JUULpod design

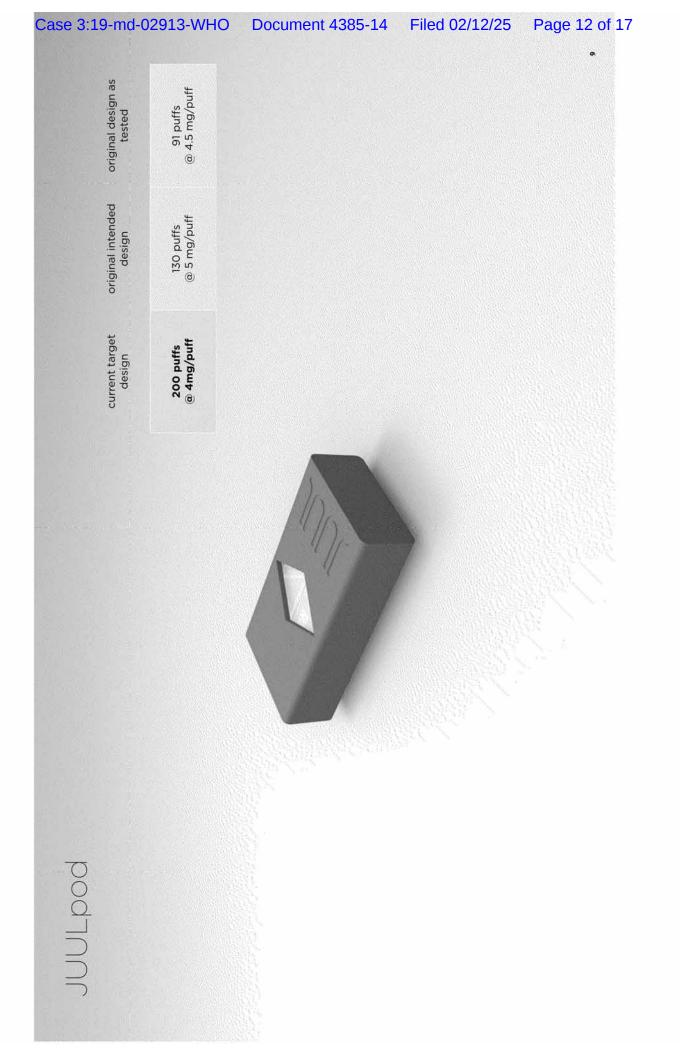
Issues with leaking at both atmosphere and pressure (e.g. on an airplane) are being addressed with a multiple design direction strategy.

Design 1 has a fiberglass air path, single wick, and a batting-filled tank to Preliminary prototypes received and being tested for leaking and vapor performance. Confidence in designs 2 and 3 have led PD to tentatively solve the leaking issue. Batting will require a 50% increase in pod size, eliminate visible liquid level, and impact end-of-life pod performance. cancel this design direction. Design 2 is a refinement of the Alpha pod design which maintains a liquid overflow areas to accommodate typical worst-case pressure scenarios. tank, with a single wick, two side air paths, improved sealing, and Preliminary prototypes due 5/12 for internal testing.

scenarios. Preliminary prototypes received and being tested. Early testing sealing, and overflow areas to accommodate typical worst-case pressure Design 3 has a liquid tank, with a single wick, central air path, improved shows good leak resistance and excellent vapor performance.

Fiberglass air path, batting to store liquid to store liquid tank, batting to store liquid to store liquid to store liquid to store liquid to store single wick single with single wick single wick single wick single wick single wick single wick single with single wick single wick single with single wick si				
Fiberglass air path, batting to store liquid Most disposables (e.g. Njoy)  Fewest leak issues, doesn't require overflow tank  50% increase in pod size, no visible liquid level,	Central plastic air path, liquid tank, overflow tank, single wick	Combination of eRoll and Njoy	Central air path results in fewer sealing surfaces and optimal air flow	More complex molding
	Side plastic air paths, liquid tank, overflow tank, single wick	JoyE eRoll	Side air paths allow design flexibility and simplified molding	Side air paths result in more sealing surfaces; airflow is non-optimal
key design elements similarity design positives	Fiberglass air path, batting to store liquid	Most disposables (e.g. Njoy)	Fewest leak issues, doesn't require overflow tank	50% increase in pod size, no visible liquid level, degraded end of
	key design elements	similarity	design	design negatives

confidential ploom, inc.



70

New Juul Green Smoke

Original Juul

## JUUL size comparison

Original Juul: 200mAh battery, 100 puffs at 4mg/3 second puff 6.4 x 13.8 x 89.7mm

New Juul: 250mAh battery, 200 puffs at 4mg/3 second puff 6.9 x 15 x 93.8mm

Slight curvature is being tested to optimize mouth feel.

Green Smoke: 270mAh (1Wh) battery, 220 puffs 9.2mm dia x 115mm **blu Rechargeable:** 80mAh (0.3Wh) battery, 180 puffs 8.7mm dia x 92.3mm



ploom, inc. confidential

timing	Completed mid Oct. 2013	Completed Feb 2014	Started Feb 2014	Delay to end of May 2014	Oct 2014	Nov 2014	0 Nov 2014	Dec 2014	Jan 2015	February 2015
milestone	Functional prototypes (5 devices/20 pods)	Alpha prototypes (25 dev/100 pods)	Design / liquid / pack design start	Beta devices (25 dev/100 pods)	Prototype sample build (50 dev/200 pods)	Packaging design (final)	Engineering sample build (100 dev/400 pods)	DVT build (200 dev/1K pods)	Pilot production (250 dev/1K pods)	Ready for market launch

ploom, inc. confidential

MDL\_RV0025956

12

Case 3:19-md-02913-WHO Document 4385-14 Filed 02/12/25 Page 16 of 17

[end]

ploom, inc. confidential

Confidential MDL\_RV0025958